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ABSTRACT

This data brief contains statistics on graduate enrollment of women and minorities in science and engineering. The data is presented in three charts that provide information on the number of graduate students in science and engineering by sex from 1980-96, minority graduate enrollment in science and engineering by race and ethnicity of U.S. citizens and permanent residents from 1989-96, and change in graduate enrollment by sex, citizenship, and race/ethnicity of U.S. citizens and permanent residents from 1995-96. (DDR)

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Division of Science Resources Studies

DATA BRIEF

Directorate for Social, Behavioral, and Economic Sciences

National Science Foundation

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Graduate Enrollment of Women and Minorities in Science and Engineering Continues to Rise

by Joan S. Burrelli

Foreign S&E graduate student enrollment has been declining since 1993.

Recent trends in science and engineering (S&E) graduate enrollment continued for most population subgroups. The number of women enrolled in graduate S&E programs, which has been rising continuously since 1980, increased 1.0 percent from 1995 to 1996. The number of men enrolled in graduate S&E programs fell 3.3 percent during the same period, continuing a series of declines since a 1992 peak enrollment (chart 1). As a result of women's rising enrollment and men's falling enrollment, women's share of graduate S&E enrollment reached a high of 39 percent in 1996.

Among U.S. citizen and permanent resident graduate students in 1996, 11 percent were members of underrepresented minority groups: 6 percent black, 5 percent Hispanic, and 0.5 percent American Indian. Enrollment of black, Hispanic, and American Indian graduate students in S&E has also been in-

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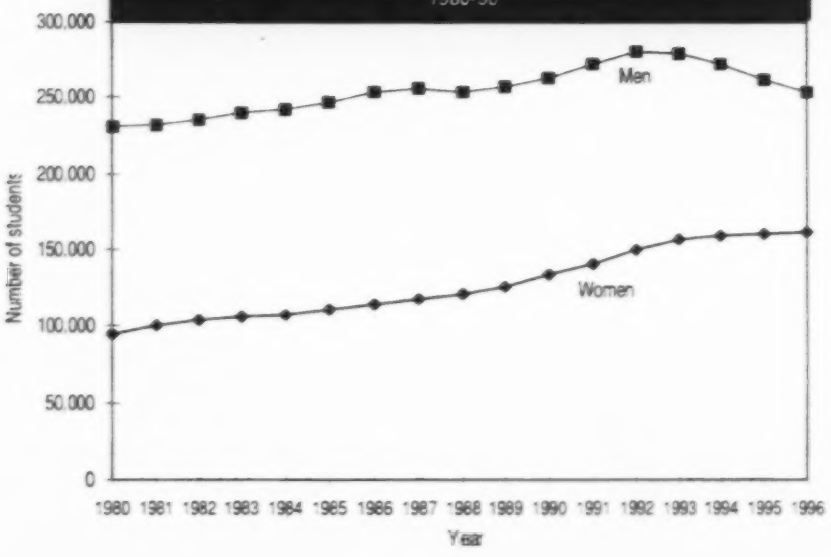
Chart 1. Number of graduate students in science and engineering, by sex: 1980-96



SOURCE: National Science Foundation/SRS, 1996 Survey of Graduate Students and Postdoctorates in Science and Engineering.

Electronic Dissemination

SRS data are available through the World Wide Web (http://www.nsf.gov/sbe/srs/stats.htm). For NSF's Telephonic Device for the Deaf, dial 703-306-0090. If you are a user of electronic mail and have access to the internet, you may order publications electronically. Send requests to pubs@nsf.gov. In your request, include the NSF publication number and title, your name, and a complete mailing address.

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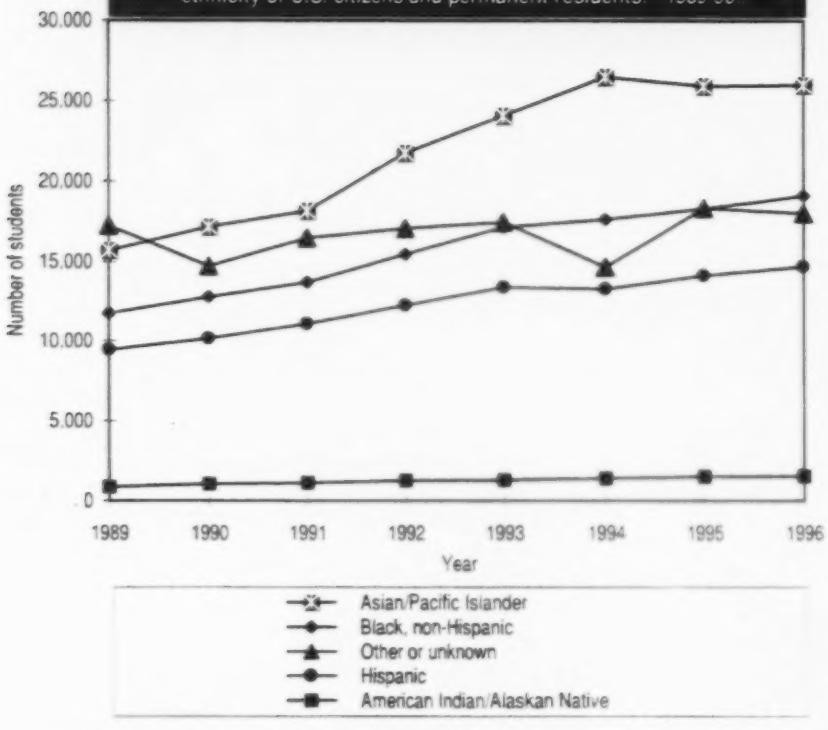
creasing over the years (chart 2). From 1995 to 1996, enrollment of blacks rose 4 percent; American Indians, 2 percent; and Hispanics, 4 percent. The increase in enrollment of underrepresented minorities[1] occurred among both men and women within each group (chart 3). Enrollment of U.S. citizen and permanent resident Asians increased 0.3 percent, although enrollment of Asian men decreased. Enrollment of white students dropped 3.1 percent with enrollment of white men decreasing 4.5 percent and enrollment of white women decreasing 1 percent.

A decline in the number of foreign S&E graduate students, evident over the past four years, appears to be abating. The number of foreign S&E graduate students fell by 0.4 percent from 1995 to 1996. In each of the three preceding years, enrollment of foreign students dropped by about 3.5 percent per year. The drop from 1995

Chart 2. Minority graduate enrollment in science and engineering, by race/ethnicity of U.S. citizens and permanent residents: 1989-96

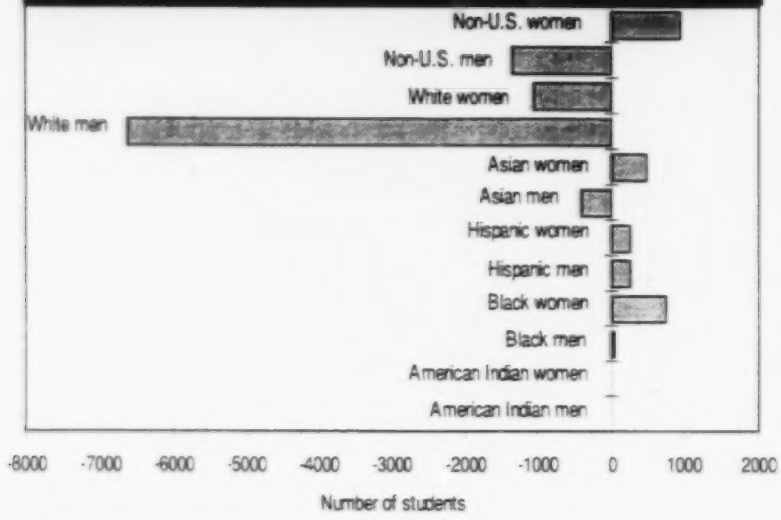


SOURCE: National Science Foundation/SRS, 1996 Survey of Graduate Students and Postdoctorates in Science and Engineering.

[1] The term "minority" includes all groups other than white; "underrepresented minorities" includes three groups whose representation in S&E is less than their representation in the general population: blacks, Hispanics, and American Indians.

[2] Trends in student enrollment by citizenship are complicated by two factors: (1) In 1991 and earlier years, permanent residents in this survey were included with foreign students. Beginning in 1992, permanent residents were included with U.S. citizens. (2) The Chinese Student Protection Act of 1992 allowed Chinese students to apply for permanent residency in 1993. As the result of both factors, the number of foreign graduate students was lower than it would have been had these factors not occurred and the number of U.S. citizen graduate students was higher than it would have been.

Chart 3. Change in graduate enrollment, by sex, citizenship, and race ethnicity of U.S. citizens and permanent residents, 1995-96



SOURCE: National Science Foundation/SRS. 1996 Survey of Graduate Students and Postdoctorates in Science and Engineering.

Total graduate S&E enrollment declined for the third year in a row.

to 1996 was confined to men; enrollment of women increased 2.7 percent and enrollment of men dropped 1.9 percent.

Total graduate S&E enrollment declined in 1996 as it has since 1994. The three years of declining enrollment followed 15 years of steady gains in enrollment. Enrollment dropped in all major fields with the exception of computer sciences (in which enrollment rose 3 percent). The largest decreases were in the physical sciences (down 3 percent) and engineering (down 4 percent). The number of students enrolled in graduate S&E programs for the *first time*, which has been decreasing since 1992, dropped another 1 percent in 1996, indicating likely continuing decreases in total enrollment in the near future.

Data presented in this Data Brief were obtained from the 1996 Survey of Graduate Students and Postdoctorates in Science and Engineering. Data were collected from approximately 11,400 departments at 603 institutions of higher education. The departmental response rate was 98.1 percent; however, 13 percent of the responding departments required partial imputation for missing data. More detailed data are available in the forthcoming report, *Graduate Students and Postdoctorates in Science and Engineering: Fall 1996*.

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